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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,029	06/25/2003	Steven E. Brenner		3937

7590 08/25/2004  
Steven E. Brenner  
136 CC Highway  
Blackwell, MO 63626

EXAMINER

BASINGER, SHERMAN D

ART UNIT PAPER NUMBER

3617

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/606,029

Applicant(s)

BRENNER, STEVEN E.

Examiner

Sherman D. Basinger

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-13 is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e) as follows:

An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

### ***Claim Objections***

2. Claim 8 is objected to because of the following informalities: in claim 8 line 3 "atleast" should be corrected to -at least-. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker in view of Cohen and Scobie.

Walker discloses a method of manufacturing a split ring face seal

including the steps of:

forming a blank (see column 4, line 4);

splitting the blank along a planar surface to form two halves (see column 4, lines 4 and 5) ;

polishing the planar surface on each of said halves (see column 4, line 5);

forming threaded holes into the blank (see column 4, lines 26 and 27 and holes 29);

turning a seal face onto the blank (see column 4, lines 10-15);

polishing the seal face (see column 4, lines 10-15).

Walker does not disclose the blank as being of fibrous material so that a face seal from fiber material is made. Cohen discloses a ring face seal 120 made from fibrous material. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to make the ring seal of the method of Walker from a fibrous material similar to the material used to make the ring seal of Cohen. Motivation to do so is to form the ring seal being made by the method of Walker of a material which would allow for self healing as taught by Cohen. Walker does not disclose using the threaded holes 29 to mount the blank to a lathe.

Scobie discloses drilling holes in a torus and using these holes to mount the torus to a lathe. In view of this teaching it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to use the threaded holes 29 of Walker to mount the blank of Walker to a lathe with use of

a support similar to 60 of Scobie for machining the critical face onto the blank.

Motivation to do so is a savings in cost. By using the threaded holes 29 of Walker to mount the blank to a lathe for finish machining the blank, a more expensive holder for the work piece blank would not be needed.

Walker does not disclose that the step of polishing includes rotating the blank in a clockwise and then in a counter clockwise direction while polishing the seal face or that the step of polishing includes rotating the blank

in a counter clockwise and then in a clockwise direction while polishing the seal face.

However, in finishing the face on the blank of Walker while using a lathe to turn the face, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to polish the face by rotating the blank in

a clockwise and then in a counter clockwise direction while polishing the seal face or to polish the face by rotating the blank

in a counter clockwise and then in a clockwise direction while polishing the seal face.

Motivation to do so is to do a good job in polishing the face. Whether the face is first turned in a clockwise or a counter clockwise direction is dependent on where the person doing the polishing is standing with regard to the blank of Walker. In reversing the direction of rotation, one can make sure that the face is very well polished. Areas which

may not be as well polished when rotating the blank in one direction, may be better polished when the blank is rotated in another direction.

***Allowable Subject Matter***

5. Claims 4-13 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: Claims 4 and 8 and the claims depending therefrom are indicated as containing allowable subject matter because none of the art of record taken alone or in combination suggest or fairly teach the limitations:

a plurality of raised fiber bearing surfaces integrally formed on the inside diameter of the split ring face seal;

said plurality of raised fiber bearing surfaces forming a gapped inner most diameter smaller than said inside diameter of said split ring face seal surface but larger than said outside of said drive shaft such that relative movement between said split ring face seal and said drive shaft can cause at least one of said raised fiber bearing surfaces to contact the outside diameter of said drive shaft, and wherein said drive shaft powers a propeller” and

“a plurality of raised fiber bearing surfaces integrally formed on the inside diameter of the split ring face seal such that relative movement between said split ring face seal and said drive shaft can cause at least one of said raised fiber bearing surfaces to contact the outside diameter of said drive shaft”.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Enemark is cited to show the seal ring 8 of graphite such that it is self-lubricating. Symons is cited to show a seal ring rotated in a holder while it is cold-worked. Lebeck et al discloses using a lathe to finish the face of a seal ring.


Draskovich is cited to show the rotor 30 embedded with graphite. MacDonald 098 and 320 are cited to show a face seal for a propeller drive shaft-see 161. Japan 10-218096 is cited to show the carbon based sealing ring used in a stern tube. Japan 8-230789 is cited to show the stern tube using a seal ring 6. GB 2 019 956 is cited to show split seal ring 6 used for a propeller shaft.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherman D. Basinger whose telephone number is 703-308-1139. The examiner can normally be reached on M-F (6:00-2:30 ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sherman D. Basinger  
Primary Examiner  
Art Unit 3617  
*8/20/04*

Sdb  
8/20/04